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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,730	09/24/2003	Richard D. Bednar	7016R-000010/COB	6411
27572	7590	11/03/2004	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			VANAMAN, FRANK BENNETT	
			ART UNIT	PAPER NUMBER
			3618	

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/669,730

Applicant(s)

BEDNAR, RICHARD D. *g*

Examiner

Frank Vanaman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 06 August 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 August 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Status of Application

1. Applicant's amendment, filed August 6, 2004, has been entered in the application. Claims 1-12 remain pending.

Specification

2. The abstract of the disclosure is objected to because in lines 8-9 of the amended abstract, "in a independent" should be –in an independent–. Correction is required. See MPEP § 608.01(b).

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "197" and "198" have both been used to designate a fuel tank. Note amended figure 1 which now indicates the fuel tank as being numeral 197, and original figure 2 (which has not been amended) which indicates the fuel tank as being numeral 198. Note that applicant's use of reference numerals associated with the fuel tank was previously addressed with specific regard to both figures 1 and 2 at paragraph 3 of the previous office action. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1, 3, 6, 7, 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griffin (US 4,301,881) in view of Sindelar (US 4,344,287). Griffin teaches a turf mower having a base (1) mounted on a plurality of wheels (3, 4, 5) with an operator chair (9) and interface (S1, S2, S3), an engine (15) which drives a hydraulic pump (P100) operating in only one direction, a first valve set (V7) having an inlet (V7:P) connected to the outlet of the pump, a first outlet (V7:B) and second outlet (V7:T), a first hydraulic motor (HM1) having an inlet (24) connected to the first outlet of the valve set (V7:B) and an outlet connected to a second inlet of the first valve set (V7:A); a second valve set (V207) having an inlet (V207:P) connected to the second outlet of the first valve set (V7:T), a second outlet (V207:T) connected to the input of the pump (through 19, 13 and 50—note col. 3, lines 52-57); a second hydraulic motor (HM101) having an inlet (224) connected to the first outlet (V207:B) of the second valve set, thus connecting the motors and pump in a series configuration, the second valve set having a second inlet (V207:A) to which the outlet (227) of the second motor is connected, each of valves 7 and 207 controlling flow direction and having three modes: a neutral mode as shown in figure 2, and forward and reverse modes, each actuatable separately by valve control elements (respective forward and reverse coils, operated by control lines 66, 73, 82, 88), a left operable control corresponding to an operation of the left valve (V7) by control lines 66, 73; an operable control corresponding to an actuation of the second valve (V207) by control lines 82, 88, the pump being a variable capacity pump (note figure 2) having a controllable capacity. The reference to Griffin fails to teach the first valve set as being a slave operated pressure compensation valve. Sindelar teaches a very old and well known pressure and volume compensation system for a valve set, wherein a valve (21) is operated by a slave device (36) driven from a controlling device (34, 46), wherein a pressure driven volume compensation valve (74) compensates for changes in volume and pressure in the system, maintaining the

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accuracy of the tracking between the controlling and slave devices. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the first valve set taught by Griffin with a pressure and volume compensation device such as taught by Sindelar, for the purpose of insuring accurate tracking between the actuator and valve, and to insure that changes in temperature and volume of the fluid do not adversely affect the operation of the valve set.

As regards claims 6 and 11, the reference to Griffin as modified by Sindelar is discussed above and fails to teach the provision of a clutch between the engine and the pump. The provision of a clutch to separate the engine of a vehicle from the working elements which draw power from the engine is old and well known, and as such, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide a clutch to separate the pump and engine for the purpose of allowing the engine to be started with no load.

6. Claims 2, 4, 5, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griffin in view of Sindelar and Porta (US 4,235,297). The reference to Griffin as modified by Sindelar is discussed above and fails to teach the valves as being capable of regulating volume as well as flow direction. Porta teaches a valve control scheme (114, 115, 116; 118, 119, 120), wherein incremental volume flow through the valves may be controlled by a control device (12, 76). It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the non-incremental solenoid-based valve controls taught by Griffin as modified by Sindelar with an incrementally adjustable pilot valve scheme as taught by Porta for the purpose of providing a greater resolution in controlling the vehicle speed and direction.

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Griffin in view of Sindelar and Yamaoka et al. (US 4,809,796, cited by applicant). The reference to Griffin as modified by Sindelar is discussed above and fails to teach the provision of a clutch between the engine and cutter blades. Yamaoka et al. teach a mower wherein an engine drives a set of cutter blades through a power take-off clutch (29) which

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selectively drives a pulley (30) and belt (31) which in turn drives the blades. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide a power take-off clutch as taught by Yamaoka to allow selective driving of the blades of the mower of Griffin as modified by Sindelar, for the purpose of allowing the vehicle to be run without the mower blades constantly running (e.g., under conditions where cutting is not needed or not desirable).

Response to Comments

8. Applicant's comments, filed with the amendment, have been carefully considered. As regards the reference to Griffin and the provision of a slave operated pressure compensation valve, the examiner agrees that the reference to Griffin does not teach such a limitation, however note the reference to Sindelar, now applied, which does teach such a device, and its use in working machines in order to compensate for changes in temperature (and resultant volume and pressure changes associated with operational conditions in a working vehicle).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ueda et al. (US 4,183,372) and Belart (US 3,683,619) teach old and well known pressure compensation slave devices.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to F. Vanaman whose telephone number is 703-308-0424. Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is 703-308-1113.

As of May 1, 2003, any response to this action should be mailed to:


Mail Stop _____
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450,

Or faxed to one of the following fax servers:

Regular Communications/Amendments: 703-872-9326
After Final Amendments: 703-872-9327
Customer Service Communications: 703-872-9325

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

F. VANAMAN
Primary Examiner
Art Unit 3618



Handwritten signature of F. Vanaman, dated 11/10/04.